



2211 North First Street, San Jose, CA 95131

Marlene H. Dorctch, Secretary  
Federal Communications Commission  
22445 12<sup>th</sup> Street S.W  
Washington, DC 20554

San Jose, CA  
September 2011

RE: PS Docket Number 11-60

Dear Ms. Dortch:

This Letter is submitted to the Federal Communications Commission (FCC) on behalf of PayPal, Inc. ("PayPal") in response to the Notice of Inquiry PS Docket Number 11-60: *Reliability and Continuity of Communications Networks, Including Broadband Technologies*.

PayPal is a leading online payments company, with more than 100 million active user accounts internationally, supporting payments in 25 currencies. Headquartered in San Jose, California, PayPal has offices in several states in the United States, along with its international headquarter in Singapore and European headquarter in Luxembourg. PayPal's payments solution connects into and leverages the traditional payment networks (whether ACH, bank card networks, or PIN networks) enabling its users to make and received payments in a safe, efficient, and cost effective manner.

Telecommunications networks in the Unites States are arguably some of the most reliable and resilient systems ever developed. This position was attained through rapid technological development and deployment coupled with regulation encouraging broad and deep adoption of telephone infrastructure. Inter-personal communication and public safety were enhanced without sacrificing business success. These networks are evidence that technical advancement, adoption, and business success are compatible with thoughtful regulation.

When introduced, telephones were not considered essential but rather a novelty. Over time, the telephone became an essential service brought under the regulatory framework of the FCC in 1934. Through that single act, all extant electronic communications mechanisms came under a single regulatory framework.

That framework was significantly modified in 1996, recognizing considerable changes in economics, business, and technology. While the framework changed, what remained constant was the intention to have all electronic communications

mechanisms regulated through a single framework and agency, the FCC. What was not, and could not have been anticipated was the rapid development in both technology and public acceptance of the Internet.

With fewer than 50 million users worldwide in 1996, the Internet was the realm of the technical cognoscenti and gadget acquirers. By 2000, the number of users exceeded 300 million, and today it stands at 2 billion. The Internet, and the networks that carry its information, are no longer an anomaly. They are mainstream and well on the way to becoming essential, like the telephone before it.

Today, nearly one quarter of US households rely on VoIP as their sole landline connection, making access to emergency services reliant on Internet availability. Television and radio are now delivered over IP networks and as a consequence, emergency broadcast messages are delivered via the Internet. Additionally, the Internet has become perhaps the predominant medium for news and information delivery. These trends will continue, with essential legacy services relying on the Internet as a transport mechanism along with new services either individually or in combination providing unforeseen enhancements.

While we can't predict the exact nature of these new services, we can predict that they will offer benefits, will be broadly adopted, and over time will become essential. At that point, "carrier grade" will be a necessity and if not achieved, almost certainly will be mandated through regulation. Companies are already offering five nines in some products and the number will increase. The transition to carrier grade can, must, and will occur. Variables are timing, cost, and difficulties in making the transition.

Delays in beginning the transition will increase both cost and difficulty and may result in over-regulation, exactly what those who oppose regulation fear most. We believe that the question should not be regulation or not, but rather how best to achieve a carrier grade Internet and what minimal set of regulation is required in order to ensure that it becomes a reality in the shortest possible time.

Important questions remain and must be answered, including how best to achieve a carrier grade Internet, either as a single system or perhaps by employing multiple redundant systems each operating at less than five nines. Using such a multi-modal technique might result in better overall connectivity and reliability at lower cost than can reasonably be achieved through any individual system. Degraded operations should be considered when discussing a carrier grade Internet recognizing that in the event of catastrophic conditions, degraded connectivity over secondary systems is preferable to no connectivity over primary systems.

We are in the midst of a transition from 19th century technology to 20th century technology. How we make this transition and how smoothly it is accomplished will be instructive to those responsible for the next transition; what comes after the Internet. While that transition likely won't come for decades there is of course no way to predict when it will occur but we would be remiss not to expect it and consider what we might do now in order to prepare for the next transition.

Our view is that regulation in this important space is inevitable, and if implemented thoughtfully will be beneficial. Through this NOI, we hope to see all parties recognize the need for responsible regulation and commit to engaging in earnest and detailed discussions on both the general need for regulation and the specifics of that regulation. Should legislative action be required, and we are neutral on this point, we hope that industry, working with the FCC, could develop and adopt a voluntary code that would inform the legislative process.

We thank the Commission for the opportunity to comment on this important topic and remain open to and available for additional discussion.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Barrett", with a stylized flourish at the end.

Michael Barrett  
PayPal CISO